

Notice of Allowability

Application No.

09/737,347

Examiner

Fred Ferris

Applicant(s)

STUECHELI, JEFFREY ADAM

Art Unit

2128

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 28 June 2005.
2. ☒ The allowed claim(s) is/are 6-9, 15-18 and 20 (Now renumbered as 1-9).
3. ☒ The drawings filed on 15 December 2000 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date 07/15/05
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

DETAILED ACTION

1. *This Office Action is in response to applicants after final amendment filed 28 June 2005. Applicants have now cancelled claims 1-5, 10-14 and 19. Amended claims 6-9, 15-18, and 20 are now been allowed over the prior art of record.*

EXAMINER'S AMENDMENT

2. *An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.*

Authorization for this examiner's amendment was given in a telephone interview with Cathrine K. Kinslow on 20 July 2005.

*In claim 20 on page 5, line 3, of applicant's amendment filed 28 June 2005 insert the word "**storage**" between the words "readable" and "medium". The preamble of claim 20 should now read as follows: "A computer program product, in a computer readable **storage** medium, for..."*

*On page 12, line 28 of applicant's specification filed 15 December 2000 delete the phrase recordable-type and insert the phrase "**storage-type**" between the words "include" and "media". Page 12, line 28 of applicant's specification should now read as follows: "include storage-type media such a floppy disc, a hard..."*

Response to Arguments

3. *Applicant's arguments filed on 28 June 2005 have been fully considered and found to be persuasive. Previous prior art rejections are now withdrawn in view of applicant's amendment to the claims and cancellation of claims 1-5, 10-14 and 19.*

Allowable Subject Matter

4. *Claims 6-9, 15-18, and 20 have now been allowed over the prior art of record.*

The following is an examiner's statement of reasons for allowance:

Applicants are disclosing a method and system for generating pseudo random test patterns for producing simulated test scenarios against a hardware model by generating a hardware model having states driving an interface, initiating a random walk through the driver model to generate test patterns, and controlling simulation of the hardware model using the driver test pattern. This has been disclosed in the prior art of record.

While these features are individually disclosed in the prior art, the prior art of record does not meet the conditions as suggested in MPEP section 2132, namely:

*"The identical invention must be shown in as complete detail as is contained in the ... claim." Richardson v. Suzuki Motor Co., 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). The elements must be arranged as required by the claim, but this is not an **ipsissimis verbis** test, i.e., identity of terminology is not required. **In re Bond**, 910 F.2d 831, 15 USPQ2d 1566 (Fed. Cir. 1990)."*

The prior art of record does not disclose the specific sequence of method steps relating to generating pseudo random test patterns for producing simulated test scenarios against a hardware model including generating a command model indication commands to send across the interface of the hardware model and random walking the command model to generate a command test pattern, as now recited in independent claims 6, 15, and 20, in the context of the claims. Applicant's specification has defined the term "command model" as the model used to describe the generation of the specific commands to send across the interface as disclosed in the specification on page 10, line 21 to page 12, line 17.

The closest prior art uncovered during examination teaches certain limitations of the claimed invention as follows:

U.S. Patent 5,202,889 issued to Aharon: Discloses generating pseudo random test patterns for producing simulated test scenarios against a hardware model by generating driver model having states where each state indicates whether to drive an interface of hardware model. However, Aharon does not disclose the specific command model for generating the command test patterns of the present invention.

"Exploiting Hardware Sharing in High-Level Synthesis for Partial Scan Optimization", S. Dey: Teaches initiating random a walk through a driver model to generate driver test pattern in the modeling of scan variables (test vectors) used for gate level hardware testing, but again, does not disclose the specific command model for generating the command test patterns of the present invention.

These features relating to the specific sequence of method steps as noted above renders independent claims 6 and 20 non-obvious over the prior art of record.

Dependent claims 7-9 are deemed allowable as being dependent from claim 6.

Independent claim 15 uses "means for" language and is further given deference in view of In re Donaldson and interpreted in view of 35 U.S.C. § 112 paragraph 6. The "means for" language and the limitations related thereto of claim 6 are interpreted within the scope of enablement as provided within the relative embodiment provided within applicant's specification. Specifically, the "means for" language recited in independent claim 15 has been interpreted as defined in the embodiment of applicant's specification as follows:

Means for generating a driver model: page 10, line 20 to page 12, line 17, Figs. 3-5.

Means for initiating random walk (driver pattern): page 12, lines 14-17, Fig. 5.

Means for controlling simulation (driver pattern): page 8, line 23 to page 10, line 13, Figs. 3-4A.

Means for generating a command model: page 10, line 14 to page 12, line 13, Fig. 5.

Means for initiating random walk (command model): page 12, lines 14-17, Fig. 5.

Means for controlling simulation (command pattern): page 10, line 14 to page 12, line 13, Figs. 4B-5.

Dependent claims 16-18 are deemed allowable as depending from claim 15.

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Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

5. *Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fred Ferris whose telephone number is 571-272-3778 and whose normal working hours are 8:30am to 5:00pm Monday to Friday. Any inquiry of a general nature relating to the status of this application should be directed to the group receptionist whose telephone number is 571-272-3700. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jean Homere can be reached at 571-272-3780. The Official Fax Number is: (703) 872-9306*

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JEAN R. HOMERE
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